



# April 25, 2014 and April 26, 2014 Exceptional Event (EE) Documentation Addendum

The Clean Air Act (CAA) recognizes that it may not be appropriate to use monitoring data influenced by "exceptional" events collected by the ambient air quality monitoring network when making certain regulatory determinations. As such, in place regulation<sup>1</sup> allows for the exclusion of monitoring data that has exceeded or violated the National Ambient Air Quality Standard (NAAQS) for particulate matter less than 10 microns (PM<sub>10</sub>). In 2007, the United States Environmental Protection Agency (USEPA) promulgated regulation that set forth requirements that needed to be met by air agencies requesting exclusion of event influenced exceedances or violations of the PM<sub>10</sub> NAAQS. The 2007 requirements embodied seven specific elements; the development of a conceptual model, addressing the not reasonably controllable or preventable criteria, analyzing the historical fluctuations, providing the clear causal relationship, describing how the event affected air quality, defining by evidence whether the event was a natural event and finalizing with an analysis of a "but-for" determination.

The October 3, 2016 revisions to CFR sections 50.1 and 50.14 "Treatment of air quality monitoring data influenced by exceptional events" returns to three core statutory elements that align closely with the CAA section 319(b). These core elements (listed below) are supported within this document and have been broken down by sub-elements below to demonstrate compliance with the revisions to the rule "Treatment of air quality monitoring data influenced by exceptional events".

1. That the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation.
2. The event was not reasonably controllable or preventable
3. The event was caused by human activity that is unlikely to recur at a particular location or was a natural event.

This Addendum is a supplement to the April 25, 2014 and April 26, 2014 EE Demonstration originally constructed under the auspices of the 2007 rule. The intent is to help the reader clearly identify where the original EE demonstration meets any new requirements imposed by the October 2016 revision. In an effort to assure that the EE Demonstration for April 25, 2014 and April 26, 2014 meets any new requirement imposed by the October 2016 revision, the Air District has identified the code sections that either were revised or are new. In addition, the Air District has provided the section or sections where the current EE Demonstration contains language that specifically addresses the revised or new requirement. Where language is contained in several

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<sup>1</sup> "Treatment of Data Influenced by Exceptional Events; Final Rule ", 72 FR 13560, March 22, 2007



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sections, the Air District has included a brief summary explaining the connection. Those sections that are in italic's represent revisions to the rule that cannot be applied because the original demonstration process followed the prior rule, these are marked New Process (NP). To help explain the impact of the April 25, 2014 and April 26, 2014 event upon the monitors that existed during 2014 in Imperial County a brief monitor measurement background is included below.

Finally, the current guidance, "Interim Guidance on the Preparation of Demonstrations in Support of Requests to Exclude Ambient Air Quality Data Affected by High Winds under the Exceptional Events Rule" dated May 2013, has not been revised to reflect the revisions to the new EE Rule. Where there is a conflict between the existing May 2013 guidance and the revised regulation the regulation supersedes.

### Monitor Measurement Background

In 2014 the Imperial County air monitoring network included five Federal Reference Method (FRM) Size-Selective Inlet (SSI) high volume samplers and two Federal Equivalent Method (FEM) Beta Attenuation Monitor Model 1020 (BAM 1020) measuring PM<sub>10</sub>. FRM samplers or filter based sampling, run on a preset schedule of 1:6 days. The State and Local Air Monitoring Sites (SLAMS) in El Centro, Westmorland and Calexico did not measure PM<sub>10</sub> because April 25, 2014 and April 26, 2014 were non-scheduled run days.<sup>2</sup> However, there were two FEM BAM 1020 continuous monitors measuring concentrations in Niland and Brawley. It is important to note that for the April 25, 2014 and April 26, 2014 events the location of these monitors contributed to the different level of impact of particulate matter upon the monitors.

**TABLE 1-1**  
**CONCENTRATIONS OF PM<sub>10</sub> ON APRIL 25, 2014 AND APRIL 26, 2014**

DATE	MONITORING SITE	AQS ID	POC(s)	HOURS	24-HOUR CONCENTRATION μg/m <sup>3</sup>	PM <sub>10</sub> NAAQS μg/m <sup>3</sup>
4/25/2014	Brawley	06-025-0007	3	23	184	150
4/26/2014	Brawley	06-025-0007	3	23	312	150
4/25/2014	Niland	06-025-4004	3	14	74	150
4/26/2014	Niland	06-025-4004	3	21	149	150

All time referenced throughout this document is in Pacific Standard Time (PST) unless otherwise noted  
April 25, 2014 and April 26, 2014 were not scheduled sampling days

The April 25, 2014 and April 26, 2014 EE Demonstration provides a National Oceanic and Atmospheric Administration (NOAA) HYSPLIT back-trajectory (**Figure 2-12 and Figure 2-13**) and a Satellite surface composite showing the movement of the weather system through the region (**Figure 2-8**) that supports the effect to the Brawley monitor. The April 25, 2014 and April 26, 2014 EE Demonstration provides evidence that strong and gusty westerly winds affected all of southeastern California and Arizona. In particular, these strong, gusty westerly winds, as measured by both "upwind" and "downwind" sites disturbed dry PM<sub>10</sub> within the mountain

<sup>2</sup> Figure 2-5 of the March 26, 2014 EE Demonstration provides the location of the monitoring sites in Imperial County.



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ranges, which divide Imperial County from San Diego County and Riverside County (**Figure 5-1**). Essentially, gusty westerly winds transported windblown dust into Imperial County affecting the Brawley monitor and causing an exceedance on different days. Topography and wind direction played significant roles.



## TITLE 40 CFR PART 50 § 50.14

### (a) Requirements - (1) Scope (i)

*This section applies to the treatment of data showing exceedances or violations of any national ambient air quality standard for purposes of the following types of regulatory determinations by the Administrator:*

#### A. Designation (CCA Section 107(d)(1)) or redesignation (CCA Section 107(d)(3))

This section of the Exceptional Event (EE) Demonstration for April 25, 2014 & April 26, 2014 explains the 3 year and 12 month submittal requirements. While the three 3 year and 12 month requirement was removed with the October 2016 revision the requirement to disclose the impact of a regulatory decision with the submittal of the EE demonstration still is required. The submittal of the April 25, 2014 and April 26, 2014 EE demonstration is expected to have a regulatory implication upon the submittal of the PM<sub>10</sub> State Implementation Plan (SIP) in 2017. (Page 3 section I.2.d)

- B. Assignment/Re-Assignment Classification category to a nonattainment area - comparison to design values  
N/A
- C. Determination that a nonattainment area attained the level of appropriate NAAQS by a specified deadline  
N/A
- D. Determination that an area has data for the specific NAAQS which qualify the area for an attainment date extension – N/A
- E. Determination under CAA section 110(k)(5) that SIP is inadequate under the requirements of CAA section 110 – N/A
- F. Other actions case-by-case basis determined by the Administrator – N/A

### (b) Determinations by the Administrator (5) High wind dust events. (i)

*The Administrator shall exclude data from use in determinations of exceedances and violations, where a State demonstrates to the Administrator's satisfaction that emissions from a high wind dust event caused a specific air pollution concentration in excess of one or more national ambient air quality standards at a particular air quality monitoring location and otherwise satisfies the requirements of this section provided that such missions are from high wind dust events. (Pages 13-21 section II.3)*

Title 40 part 50.1 defines a "high wind dust event" as an event that includes the high-speed wind and the dust that the wind entrains and transports to a monitoring site. The April 25, 2014 and April 26, 2014 EE demonstration compiles evidence that demonstrates that as early as the afternoon of April 25, 2014 wind speeds associated with a low-pressure system affected the Brawley monitor resulting in an exceedance on April 25, 2014 and April 26, 2014. Appendix A of the April 25, 2014 and April 26, 2014 EE demonstration contains copies of pertinent National Weather Service notices describing the meteorological conditions affecting the region.

The EE demonstration for April 25, 2014 and April 26, 2014 contains sections that in its entirety provide evidence that the "high wind dust event" affected air quality. Both the historical norm section, which discusses the historical concentration data, and the clear causal section bring together the argument that the "high wind dust event" affected the Brawley monitor causing an exceedance on April 25, 2014 and April 26, 2014. The analysis contained in the April 25, 2014 and April 26, 2014 demonstration contains analyses and statistics showing how the observed event concentration compares to the distribution or time series of historical concentrations of PM<sub>10</sub>. The April 25, 2014 and April 26, 2014 demonstration contains graphs, time series, and visibility graphs, measurements from regulatory and non-regulatory monitoring stations, satellite imagery and appendices with special weather statements and advisories, graphs showing wind direction and the path of the emissions from the identified source area. (Pages 13-21 section II.3; Pages 22-42 section III & V; Appendix's B and C)

In addition, the April 25, 2014 and April 26, 2014 demonstration provides evidence that the event was a "natural event" that was not reasonably controllable and preventable. Finally, the April 25, 2014 and April 26, 2014 EE



demonstration provides evidence that all known anthropogenic sources, upwind of the affected monitor, were controlled but were overwhelmed by the "natural event". (Pages 26-30 section IV; Appendix D)

**(b) Determinations by the Administrator (5) High wind dust events. (ii)**

*The Administrator will consider high wind dust events to be natural events in cases where windblown dust is entirely from natural undisturbed lands in the area or where all anthropogenic sources are reasonably controlled as determined in accordance with paragraph (b)(8) of this section. (Pages 26-30 section IV)*

Title 40 part 50.1 defines a "natural event" as an event and its resulting emissions, which may recur at the same location, in which human activity plays little or no direct causal role. The definition further explains that anthropogenic sources that are reasonably controlled are considered to not play a direct role in causing emissions. As explained below, the April 25, 2014 and April 26, 2014 EE demonstration compiles evidence that demonstrates that all known anthropogenic sources in Imperial County applied reasonable measures but were overwhelmed by the "natural event". The Introduction and the Conceptual Model sections of the April 25, 2014 and April 26, 2014 EE demonstration provides the background topographical and climatologically information surrounding the affected area and provides trajectory information identifying the areas affected by the "natural event". (Pages 26-30 section IV)

**(b) Determinations by the Administrator (5) High wind dust events. (iii)**

*The Administrator will accept a high wind threshold of a sustained wind of 25 mph for areas in the States of Arizona, California, Colorado, Kansas, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, and Wyoming provided this value is not contradicted by evidence in the record at the time the State submits a demonstration. In lieu of this threshold, States can identify and use an Administrator-approved alternate area-specific high wind threshold that is more representative of local or regional conditions, if appropriate. (Pages 13-21 section II.3)*

Title 40 part 50.1 defines a "high wind threshold" as the minimum wind speed capable of causing particulate matter emissions from natural undisturbed lands in the area affected by the "high wind dust event". Current guidance indicates that EPA will accept that high winds "could be the cause of a high 24-hour average PM<sub>10</sub> or PM<sub>2.5</sub> concentration" if there is at least one full hour where the hourly average wind speed is above the area-specific high wind threshold.<sup>3</sup> EPA further recognizes that sources of wind speed data employ "short-period" averages generally accepting that the hourly average wind speed was above the threshold if the reported short-period wind speed was above the threshold. In addition, current guidance indicates that wind speed data need not necessarily have to be at the location of the exceedance but the data should represent the source area generating the emissions. Finally, guidance states that EPA generally recommends using National Weather Service data or the National Climate Data Center.

The April 25, 2014 and April 26, 2014 EE demonstration provides evidence from Airport, regulatory and non-regulatory meteorological stations that as early as the afternoon of April 25, 2014 elevated winds, in some cases gusts in excess of 25mph, suspended particulate matter into the air. Because winds continued to be elevated through April 26, 2014, elevated particulate matter affected the Brawley monitor resulting in an exceedance. Winds were again elevated for a number of hours during the early morning hours of April 25, 2014. In some cases, gusts of over 20 mph were observed at the El Centro NAF, affecting the Brawley monitor resulting in another exceedance. **Appendix B** contains QCLCD reports for the Imperial County Airport and the Naval Air Facility Airport as well as other surrounding airports in Riverside County.

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<sup>3</sup> USEPA, "Interim Guidance on the Preparation of Demonstration in Support of Requests to Exclude Ambient Air Quality Data Affected by High Winds under the Exceptional Events Rule", May 2013



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**(b) Determinations by the Administrator (5) High wind dust events. (iv)**

*In addressing the requirements set forth in paragraph (c )(3)(iv)(D) of this section regarding the not reasonably preventable criterion, the State shall not be required to provide a case-specific justification for a high wind dust event. (Pages 13-21 section II.3)*

The April 25, 2014 and April 26, 2014 EE demonstration provides evidence that a "high wind event" occurred as early as the afternoon of April 25, 2014 and continued through April 26, 2014 affecting the Brawley monitor. The April 25, 2014 and April 26, 2014 EE demonstration provides evidence that a "high wind event" occurred because of a low-pressure system that moved through southern California as early as the afternoon of April 25, 2014. **Appendix A** of the April 25, 2014 and April 26, 2014 EE demonstration provides copies pertinent National Weather Service notices describing the meteorological event. As a result, the meteorological event, the low-pressure system and the resulting high winds were not preventable.

**(b) Determinations by the Administrator (5) High wind dust events. (v)**

*With respect to the not reasonably controllable criterion of paragraph (c )(3)(iv)(D) of this section, dust controls on an anthropogenic source shall be considered reasonable in any case in which the controls render the anthropogenic source as resistant to high winds as natural undisturbed lands in the area affected by the high wind dust event. The Administrator may determine lesser controls reasonable on a case-by-case basis.*

Both permitted and non-permitted sources are required to comply with Regulation VIII requirements that address fugitive dust emissions. The identified permitted sources are Aggregate Products, Inc., US Gypsum Quarry, Val-Rock, Inc., Granite Construction, US Gypsum Plaster City, Laidlaw Environmental Services, and various agricultural operations.

Non-permitted sources include the wind farm known as Ocotillo Express, and a solar facility known as CSolar IV West. In addition, the desert region is under the jurisdiction of the Bureau of Land Management and the California Department of Parks. All these sources are required to comply with Regulation VIII at all times. Regulation VIII was approved as BACM by EPA with an effective date of May 22, 2013. Therefore, as the HYSPLIT Model found on pages 19-20 of the demonstration demonstrates, the exceedance experienced by the Brawley monitor was due to dust particles transported from desert regions and agricultural lands controlled by Regulation VIII. (**Attached Figs ADD-1 and ADD-2 Maps; Pages 26-30 section IV**)

**(b) Determinations by the Administrator (5) High wind dust events. (vi)**

*For large-scale and high-energy high wind dust events, the Administrator will generally consider a demonstration documenting the nature and extent of the event to be sufficient with respect to the not reasonably controllable criterion of paragraph (c )(3)(iv)(D) of this section provided the State provides evidence showing that the event satisfies the following:*

*(A) The event is associated with a dust storm and is the focus of a Dust Storm Warning*

*(B) The event has sustained winds that are greater than or equal to 40 miles per hour*

*(C) The event has reduced visibility equal to or less than 0.5 miles.*

**(Section does not apply to the April 25, 2014 and April 26, 2014 EE demonstration)**

**(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (i)**

*The not reasonably controllable or preventable criterion has two prongs that the State must demonstrate: prevention and control.*

An event is considered not reasonably preventable if reasonable measures to prevent the event were applied at the time of the event. Similarly, an event is considered not reasonably controllable if reasonable measures to control the impact of the event on air quality were applied at the time of the event. The final guidance issued October 2016 explains that when addressing the "not reasonably controllable or preventable" criterion air agencies should identify the natural and anthropogenic sources of emissions causing and contributing to the monitored exceedances. Identify the relevant SIP or other enforceable control measures in place for the





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identified sources as well as the implementation status of the controls and if applicable, provide evidence of effective implementation and enforcement of reasonable controls.

**(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (ii)**

*The Administrator shall determine that an event is not reasonably preventable if the State shows that reasonable measures to prevent the event were applied at the time of the event.*

An event is not reasonably preventable if reasonable measures to prevent the event were applied at the time of the event. However, for "high wind events" when PM<sub>10</sub> concentrations are due to dust raised by high winds from desert areas whose sources are controlled with Best Available Control Measures (BACM) then the event is a "natural event" where human activity played little or no direct causal role and thus not preventable. The April 25, 2014 and April 26, 2014 EE demonstration provides evidence that a large low-pressure system moved into southern California April 25, 2014 suspending particulate matter and keeping the dust in the air well through April 26, 2014. Thus, this event was not preventable. (Attached Figs ADD-1 and ADD-2 Maps; Pages 26-30 section IV)

**(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (iii)**

*The Administrator shall determine that an event is not reasonably controllable if the State shows that reasonable measures to control the impact of the event on air quality were applied at the time of the event.*

An event is not reasonably controllable if reasonable measures to control the impact of the event on air quality are applied at the time of the event. Both permitted and non-permitted sources are required to comply with Regulation VIII requirements that address fugitive dust emissions. The identified permitted sources are Aggregate Products, Inc., US Gypsum Quarry, Val-Rock, Inc., Granite Construction, US Gypsum Plaster City, and Laidlaw Environmental Services. Non-permitted sources include the wind farm known as Ocotillo Express, and a solar facility known as CSolar IV West. In addition, the desert region is under the jurisdiction of the Bureau of Land Management and the California Department of Parks. All these sources are required to comply with Regulation VIII at all times. Regulation VIII was approved as BACM by EPA with an effective date of May 22, 2013. (Attached Figs ADD-1 and ADD-2 Maps; Pages 26-30 section IV)

**(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (iv)**

*The Administrator shall assess the reasonableness of available controls for anthropogenic sources based on information available as of the date of the event.*

According to the October 2016 revision, the EPA would consider enforceable control measures that were approved by the EPA as part of a State Implementation Plan. The demonstration must be submitted within 5 years of the date of approval and must address the event-related pollutant and all sources necessary for fulfill the requirements of the Clean Air Act (CAA) with respect to all anthropogenic sources that may have contributed to the event-related emissions. The Imperial County Air Pollution Control District adopted Regulation VIII October of 2012 with approval by EPA of the adopted rules as BACM. The effective date of the rule approval was May 22, 2013. Regulation VIII addresses the desert open areas managed by BLM, California Department of Parks, Construction, Open Areas, Track Out, Paved and Unpaved roads and Agricultural Operations. All stationary sources are required to keep dust emissions controlled.

The April 25, 2014 and April 26, 2014 EE demonstration identifies the Sonoran desert to the west of the Brawley monitor as the primary source of dust emissions. This addendum includes a Map where identified stationary sources are identified. Non-stationary sources include renewable energy facilities, one wind farm and a solar farm. The remaining area is comprised of managed lands by the Bureau of Land Management, the California Department of Parks, and the United States Military. Regulation VIII as approved by EPA with an effective date of May 22, 2013 applies to all these sources and is in force on any given day. The April 25, 2014 and April 26,



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2014 EE demonstration contains a section with the results of the review of sources either permitted or not permitted. The section identifies any complains and resolutions. For the April 25, 2014 and April 26, 2014 EE demonstration, no complaints were filed. (Attached Figs ADD-1 and ADD-2 Maps; Pages 26-30 section IV)

**(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (v)**

*Except where a State, tribal or federal air agency is obligated to revise its state implementation plan, tribal implementation plan, or federal implementation plan, the Administrator shall consider enforceable control measures implemented in accordance with a state implementation plan, tribal implementation plan, or federal implementation plan, **approved by the EPA within 5 years of the date of the event**, that address the event-related pollutant and all sources necessary to fulfill the requirements of the Clean Air Act for the state implementation plan, tribal implementation plan, or federal implementation plan to be reasonable controls with respect to all anthropogenic sources that have or may have contributed to the monitored exceedance or violation.*

According to the October 2016 revision, the EPA would consider enforceable control measures that were approved by the EPA as part of a State Implementation Plan. The demonstration must be submitted within 5 years of the date of approval and must address the event-related pollutant and all sources necessary for fulfill the requirements of the Clean Air Act (CAA) with respect to all anthropogenic sources that may have contributed to the event-related emissions. The Imperial County Air Pollution Control District adopted Regulation VIII October of 2012 with approval by EPA of the adopted rules as BACM. The effective date of the rule approval was May 22, 2013. Regulation VIII addresses the desert open areas managed by BLM, California Department of Parks, Construction, Open Areas, Track Out, Paved and Unpaved roads and Agricultural Operations. All stationary sources are required to keep dust emissions controlled in accordance to Regulation VIII. The Imperial County Air Pollution Control District is not obligated to revise or adopt a State Implementation Plan (SIP).

While the April 25, 2014 and April 26, 2014 EE demonstration identifies that the submission of the EE demonstration would be used for regulatory purposes, the submittal of a PM<sub>10</sub> SIP in 2018, there is currently no legal requirement or obligation, such as a SIP call, for the Imperial County Air Pollution Control District to submit a PM<sub>10</sub> SIP. (Attached Figs ADD-1 and ADD-2 Maps; Pages 26-30 section IV)

**(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (vi)**

*Where a State, tribal or federal air agency is obligated to revise its state implementation plan, tribal implementation plan, or federal implementation plan, the deference to enforceable control measures identified in paragraph (b)(8)(v) of this section shall remain only until the due date of the required state implementation plan, tribal implementation plan, or federal implementation plan revisions. However, where an air agency is obligated to revise the enforceable control measures identified in paragraph (b)(8)(v) of this section in its implementation plan as a result of an action pursuant to Clean Air Act section 110(k)(5), the deference, if any, to those enforceable control measures shall be determined on a case-by-case basis.*

**(Section does not apply to the April 25, 2014 and April 26, 2014 EE demonstration)**

**(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (vii)**

*The Administrator shall not require a State to provide case-specific justification to support the not reasonably controllable or preventable criterion for emissions-generating activity that occurs outside of the State's jurisdictional boundaries within which the concentration at issue was monitored. In the case of a tribe treated as a state under 40 CFR 49.2 with respect to exceptional events requirements, the tribe's jurisdictional boundaries for purposes of requiring or directly implementing emission controls apply. In the case of a federal land manager or other federal agency submitting a demonstration under the requirements of this section, the jurisdictional boundaries that apply are those of the State or the tribe depending on which has jurisdiction over the area where the event has occurred.*

**(Section does not apply to the April 25, 2014 and April 26, 2014 EE demonstration)**





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**(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (viii)**

*In addition to the provisions that apply to specific event types identified in paragraphs (b)(3)(ii) and (b)(5)(i) through (iii) of this section in addressing the requirements set forth in paragraph (c)(3)(iv)(D) of this section regarding the not reasonably controllable or preventable criterion, the State must include the following components:*

**(A) Identification of the natural and anthropogenic sources of emissions causing and contributing to the monitored exceedance or violation, including the contribution from local sources**

The April 25, 2014 and April 26, 2014 EE demonstration identifies the Sonoran desert to the west of the Niland and Brawley monitors as the primary source of dust emissions. This addendum includes a Map where identified stationary sources are identified. Non-stationary sources include renewable energy facilities, one wind farm and a solar farm. The remaining area is comprised of managed lands by the Bureau of Land Management, the California Department of Parks, and the United States Military. **(Attached Figs ADD-1 and ADD-2 Maps)**

**(B) Identification of the relevant state implementation plan, tribal implementation plan, or federal implementation plan or other enforceable control measures in place for the source identified in paragraph (b)(8)(vii)(A) of this section and the implementation status of these controls.**

The Imperial County Air Pollution Control District adopted Regulation VIII October of 2012 with approval by EPA of the adopted rules as BACM. The effective date of the rule approval was May 22, 2013. Regulation VIII addresses the desert open areas managed by BLM, California Department of Parks, Construction, Open Areas, Track Out, Paved and Unpaved roads and Agricultural Operations. All stationary sources are required to keep dust emissions controlled. The Imperial County Air Pollution Control District is not obligated to revise or adopt a State Implementation Plan (SIP). **(Pages 26-30 section IV)**

**(C) Evidence of effective implementation and enforcement of the measures identified in paragraph (b)(8)(vii)(B)**

The April 25, 2014 and April 26, 2014 EE demonstration contains a section with the results of the review of permitted and non-permitted sources. The section identifies any complains and resolutions. For the April 25, 2014 and April 26, 2014 EE demonstration, no complaints were filed. **(Page 29 section IV.1.c)**

**(D) The provisions in this paragraph shall not apply if the provisions in paragraph (b)(4), (b)(5)(vi), or (b)(6) of this section apply.**

The April 25, 2014 and April 26, 2014 EE demonstration is a "high wind" demonstration and not a Wildfire, Large-scale and high-energy high wind dust event, or a Stratospheric Intrusion.

**(c) Schedules and procedures. (2) Initial notification of potential exceptional event. (i)**

*A State shall notify the Administrator of its intent to request exclusion of one or more measured exceedances of an applicable national ambient air quality standard as being due to an exceptional event by creating an initial event description and flagging the associated data that have been submitted to the AQS database and by engaging in the Initial Notification of Potential Exceptional Event process as follows:*

**(A) The State and the appropriate EPA Regional office shall engage in regular communications to identify those data that have been potentially influenced by an exceptional event, to determine whether the identified data may affect a regulatory determination and to discuss whether the State should develop and submit an exceptional events demonstration according to the requirements in this section.**

The April 25, 2014 and April 26, 2014 EE demonstration discussed the initial notification process by the Imperial County Air Pollution Control District. The initial notification was submitted to the California Air Resources Board



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May 28, 2015 under the provisions of the 2007 rule this was in advance of the revision, which occurred October 2016. However, the Imperial County Air Pollution Control District had consultations with the California Air Resources before moving forward. Under the prior 2007 rule the Imperial County Air Pollution Control District did submit an initial EE demonstration for comment and review to both USEPA and CARB

- (B)** *For data that may affect an anticipated regulatory determination or where circumstances otherwise compel the Administrator to prioritize the resulting demonstration, the Administrator shall respond to a States' Initial Notification of Potential Exceptional Event with a due date for demonstration submittal that considers the nature of the event and the anticipated timing of the associated regulatory decision;*

The April 25, 2014 and April 26, 2014 EE demonstration discussed the initial notification process by the Imperial County Air Pollution Control District. The initial notification was submitted to the California Air Resources Board May 28, 2015 under the provisions of the 2007 rule this was in advance of the revision, which occurred October 2016. However, the Imperial County Air Pollution Control District had consultations with the California Air Resources before moving forward. Under the prior 2007 rule the Imperial County Air Pollution Control District did submit an initial EE demonstration for comment and review to both USEPA and CARB

- (C)** *The Administrator may waive the Initial Notification of Potential Exceptional Event process on a case-by-case basis.*

The April 25, 2014 and April 26, 2014 EE demonstration discussed the initial notification process by the Imperial County Air Pollution Control District. The initial notification was submitted to the California Air Resources Board May 28, 2015 under the provisions of the 2007 rule this was in advance of the revision, which occurred October 2016. However, the Imperial County Air Pollution Control District had consultations with the California Air Resources before moving forward. Under the prior 2007 rule the Imperial County Air Pollution Control District did submit an initial EE demonstration for comment and review to both USEPA and CARB

**(c) Schedules and procedures. (3) Submission of demonstrations (iv)**

*The demonstration to justify data exclusion must include:*

- (A)** *A narrative conceptual model that describes the event(s) causing the exceedance or violation and a discussion of how emissions from the event(s) led to the exceedance or violation at the affected monitor(s);*

The April 25, 2014 and April 26, 2014 EE demonstration contains a section, which discusses the Conceptual model, which describes the event that caused the exceedance. The Introduction and the Conceptual Model sections of the April 25, 2014 and April 26, 2014 EE demonstration provides the background topographical and climatologically information surrounding the impacted area and provides trajectory information identifying the areas impacted by the "natural event". In addition, the section contains graphs and figures that provide time sequence analysis and concentration related impacts. **(Pages 1-13 sections I thru II.3)**

- (B)** *A demonstration that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation*

- (C)** *Analysis comparing the claimed event-influenced concentration(s) to concentration(s) at the same monitoring site at other times to support the requirement at paragraph (c )(3)(iv)(B) of this section. The Administrator shall not require a State to prove a specific percentile point in the distribution of data;*

- (D)** *A demonstration that the event was both not reasonably controllable and not reasonably preventable; and*

The April 25, 2014 and April 26, 2014 EE demonstration provides evidence that a "high wind event" occurred elevating PM<sub>10</sub> concentrations from desert areas whose identified sources were controlled with Best Available Control Measures (BACM). Such "high wind events" are not preventable as they are meteorological systems. In the April 25, 2014 and April 26, 2014 EE demonstration a low-pressure system moved through southern



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California as early as the afternoon on April 25, 2014 and continued through April 26, 2014. The weather system brought strong westerly winds across the mountains and deserts and was then a "natural event". In addition because the identified sources were reasonably controlled with BACM then it is reasonable to conclude that human activity played little or no direct causal role and thus the event was not preventable or controllable.

**(E)** *A demonstration that the event was a human activity that is unlikely to recur at a particular location or was a natural event.*

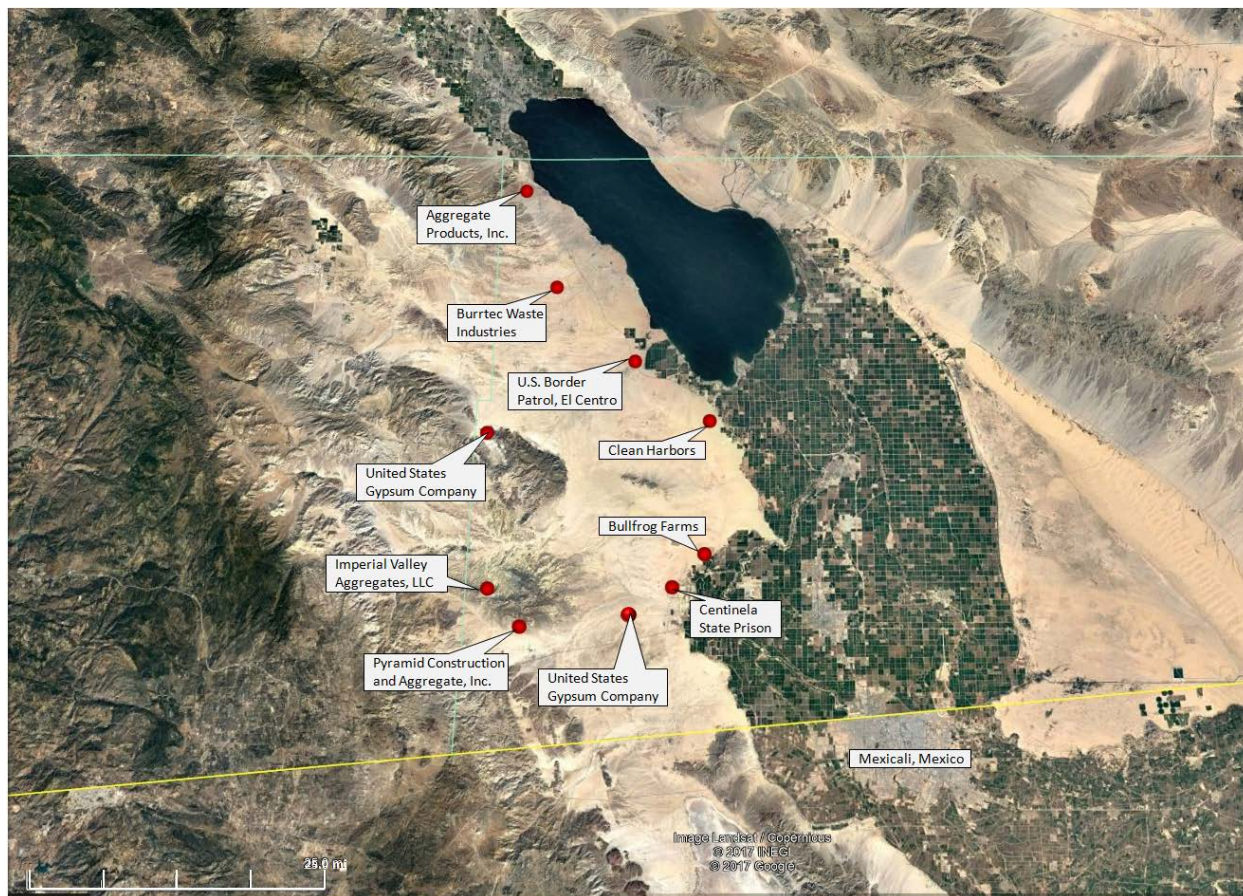
The April 25, 2014 and April 26, 2014 EE demonstration provides evidence that a "high wind event" occurred elevating PM<sub>10</sub> concentrations from desert areas whose identified sources were controlled with Best Available Control Measures (BACM). Such "high wind events" are not preventable as they are meteorological systems. In the April 25, 2014 and April 26, 2014 EE demonstration a large low-pressure system moved through southern California as early as the afternoon of April 25, 2014 and continued through April 26, 2014. The weather system brought strong westerly winds across the mountains and deserts and was then a "natural event". In addition because the identified sources were reasonably controlled with BACM then it is reasonable to conclude that human activity played little or no direct causal role and thus the event was not preventable or controllable.



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**FIGURE ADD-1  
IDENTIFIED SOURCES**



**Fig ADD-1:** The above map identifies those permitted sources located west, northwest and southwest of the Brawley monitor. The green line to the north denotes the political division between Imperial and Riverside counties. The yellow line below denotes the international border between the United States and Mexico. The green checker-boarded areas are a mixed use of agricultural and community parcels. In addition, either the Bureau of Land Management or the California Department of Parks manages the desert areas

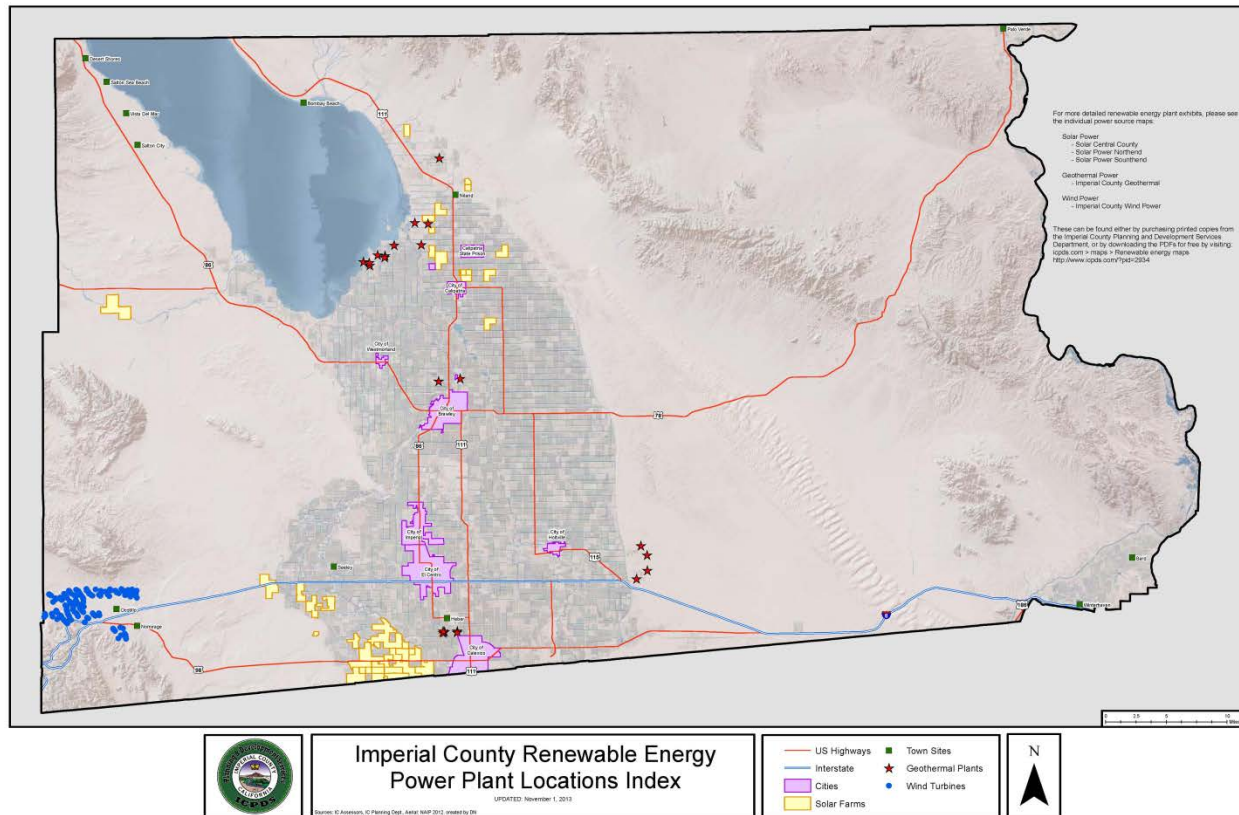




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**FIGURE ADD-2  
IDENTIFIED POWER SOURCES**



**Fig ADD-2:** The above map identifies those power sources located west, northwest and southwest of the Brawley monitor. Blue indicate the Wind Turbines, Yellow are the solar farms and stars are geothermal plants



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**TABLE ADD-1**  
**BRAWLEY WIND SPEED TABLE APRIL 25, 2014**

CAMPO				EL CENTRO NAF (KNJK)				IMPERIAL CO AIRPORT (KIPL)				BRAWLEY FEM 4/25/2014	
HOURL	W/S	W/G	W/D	HOURL	W/S	W/G	W/D	HOURL	W/S	W/G	W/D	HOURL	PM <sub>10</sub> (µg/m <sup>3</sup> )
52	5		60	56	17		250	53	7		270	0	53
152	5		50	156	21		250	153	8		280	100	46
252	6		60	256	13		250	253	7		240	200	38
352	5		50	356	8		170	353	8		210	300	19
452	6		50	456	0		0	453	7		200	400	28
552	6		60	556	10		210	553	3		VR	500	51
652	0		0	656	6		120	653	7		150	600	91
752	9		220	756	5		VR	753	5		150	700	73
852	17	21	230	856	5		210	853	3		VR	800	37
952	18		230	956	11	17	190	953	8		260	900	32
1052	14	21	210	1056	16		240	1053	14	21	250	1000	26
1152	15	21	240	1156	16	24	230	1153	15		250	1100	28
1252	21	29	230	1256	21	29	250	1253	18		250	1200	48
1352	21		220	1356	23	33	240	1353	20	30	250	1300	60
1452	23	31	220	1456	22	29	240	1453	22	32	250	1400	323
1552	17	26	230	1556	26	38	230	1553	26	37	250	1500	259
1652	20	26	230	1656	28	34	240	1653	24	32	240	1600	576
1752	18	24	230	1756	17	25	210	1753	30	37	250	1700	441
1852	20		230	1856	15	28	240	1853	28	40	250	1800	359
1952	17	25	230	1956	26	34	250	1953	18	32	230	1900	943
2052	15		220	2056	36	46	240	2053	21	30	240	2000	
2152	16		230	2156	26	32	230	2153	24	38	250	2100	477
2252	20	26	230	2256	21	32	230	2253	29	39	240	2200	148
2352	22	31	230	2356	32	40	250	2353	13	18	300	2300	98

**Table ADD-1:** Wind speed, wind gust, and wind direction tables for Campo airport, El Centro NAF, and Imperial County Airport comparative to the concentration of the Brawley FEM Monitor on April 25, 2014. Values indicated in red are wind speed values coincident with the Brawley FEM Monitor measured PM<sub>10</sub> concentrations above 100 µg/m<sup>3</sup>





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**TABLE ADD-2**  
**NILAND WIND SPEED TABLE APRIL 25, 2014**

CAMPO				EL CENTRO NAF (KNJK)				IMPERIAL CO AIRPORT (KIPL)				NILAND FEM 4/25/2014	
HOURL	W/S	W/G	W/D	HOURL	W/S	W/G	W/D	HOURL	W/S	W/G	W/D	HOURL	PM <sub>10</sub> (µg/m <sup>3</sup> )
52	5		60	56	17		250	53	7		270	0	44
152	5		50	156	21		250	153	8		280	100	37
252	6		60	256	13		250	253	7		240	200	54
352	5		50	356	8		170	353	8		210	300	50
452	6		50	456	0		0	453	7		200	400	54
552	6		60	556	10		210	553	3		VR	500	
652	0		0	656	6		120	653	7		150	600	50
752	9		220	756	5		VR	753	5		150	700	60
852	17	21	230	856	5		210	853	3		VR	800	87
952	18		230	956	11	17	190	953	8		260	900	42
1052	14	21	210	1056	16		240	1053	14	21	250	1000	43
1152	15	21	240	1156	16	24	230	1153	15		250	1100	42
1252	21	29	230	1256	21	29	250	1253	18		250	1200	37
1352	21		220	1356	23	33	240	1353	20	30	250	1300	41
1452	23	31	220	1456	22	29	240	1453	22	32	250	1400	396
1552	17	26	230	1556	26	38	230	1553	26	37	250	1500	
1652	20	26	230	1656	28	34	240	1653	24	32	240	1600	
1752	18	24	230	1756	17	25	210	1753	30	37	250	1700	
1852	20		230	1856	15	28	240	1853	28	40	250	1800	
1952	17	25	230	1956	26	34	250	1953	18	32	230	1900	
2052	15		220	2056	36	46	240	2053	21	30	240	2000	
2152	16		230	2156	26	32	230	2153	24	38	250	2100	
2252	20	26	230	2256	21	32	230	2253	29	39	240	2200	
2352	22	31	230	2356	32	40	250	2353	13	18	300	2300	

**Table ADD-2:** Wind speed, wind gust, and wind direction tables for Campo airport, El Centro NAF, and Imperial County Airport, comparative to the concentration of the Niland FEM Monitor on April 25, 2014. Values indicated in red are wind speed values coincident with the Niland FEM Monitor measured PM<sub>10</sub> concentrations above 100 µg/m<sup>3</sup>



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**TABLE ADD-3**  
**BRAWLEY WIND SPEED TABLE APRIL 26, 2014**

CAMPO				EL CENTRO NAF (KNJK)				IMPERIAL CO AIRPORT (KIPL)				BRAWLEY FEM	
HOUR	W/S	W/G	W/D	HOUR	W/S	W/G	W/D	HOUR	W/S	W/G	W/D	HOUR	PM <sub>10</sub> (µg/m <sup>3</sup> )
52	20		210	56	26	36	230	53	3		VR	0	49
152	21	33	210	156	8		180	153	18	31	230	100	77
252	18	32	240	256	25	33	260	253	13		280	200	347
352	20	30	270	356	18	41	270	353	18	32	260	300	817
452	22	34	250	456	18		290	453	8		270	400	175
552	21	31	250	556	17		270	553	17	24	290	500	436
652	28	44	240	656	15		260	653	14		260	600	381
752	25	32	250	756	25	36	250	753	29	40	250	700	574
852	23	37	270	856	26		240	853	18	30	250	800	460
952	17	29	250	956	28	37	260	953	22	32	250	900	182
1052	20	28	260	1056	18	31	250	1053	23	32	280	1000	288
1152	18	28	270	1156	23	31	270	1153	17	34	290	1100	525
1252	13	25	260	1256	18	36	270	1253	22	29	250	1200	828
1352	15	24	240	1356	26	37	250	1353	21	37	280	1300	
1452	16	25	230	1456	24	32	290	1453	20	31	280	1400	602
1552	18		230	1556	24	34	280	1553	24	32	280	1500	499
1652	21		230	1656	24		260	1653	14	23	290	1600	309
1752	17	24	230	1756	26	37	250	1753	20	26	280	1700	213
1852	18		230	1856	31	40	260	1853	18		250	1800	187
1952	20	24	230	1956	21	26	250	1953	20		260	1900	96
2052	17		240	2056	23	34	250	2053	17	25	260	2000	58
2152	11		220	2156	23		250	2153	17		260	2100	36
2252	8		210	2256	20	25	250	2253	15		260	2200	32
2352	0		0	2356	18		250	2353	11		260	2300	25

**Table ADD-3:** Wind speed, wind gust, and wind direction tables for Campo airport, El Centro NAF, and Imperial County Airport comparative to the concentration of the Brawley FEM Monitor on April 26, 2014. Values indicated in red are wind speed values coincident with the Brawley FEM Monitor measured PM<sub>10</sub> concentrations above 100 µg/m<sup>3</sup>



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**TABLE ADD-4**  
**NILAND WIND SPEED TABLE APRIL 26, 2014**

CAMPO				EL CENTRO NAF (KNJK)				IMPERIAL CO AIRPORT (KIPL)				NILAND FEM	
HOUR	W/S	W/G	W/D	HOUR	W/S	W/G	W/D	HOUR	W/S	W/G	W/D	HOUR	PM <sub>10</sub> (µg/m <sup>3</sup> )
52	20		210	56	26	36	230	53	3		VR	0	
152	21	33	210	156	8		180	153	18	31	230	100	179
252	18	32	240	256	25	33	260	253	13		280	200	194
352	20	30	270	356	18	41	270	353	18	32	260	300	39
452	22	34	250	456	18		290	453	8		270	400	15
552	21	31	250	556	17		270	553	17	24	290	500	203
652	28	44	240	656	15		260	653	14		260	600	132
752	25	32	250	756	25	36	250	753	29	40	250	700	61
852	23	37	270	856	26		240	853	18	30	250	800	364
952	17	29	250	956	28	37	260	953	22	32	250	900	404
1052	20	28	260	1056	18	31	250	1053	23	32	280	1000	142
1152	18	28	270	1156	23	31	270	1153	17	34	290	1100	53
1252	13	25	260	1256	18	36	270	1253	22	29	250	1200	228
1352	15	24	240	1356	26	37	250	1353	21	37	280	1300	308
1452	16	25	230	1456	24	32	290	1453	20	31	280	1400	150
1552	18		230	1556	24	34	280	1553	24	32	280	1500	113
1652	21		230	1656	24		260	1653	14	23	290	1600	
1752	17	24	230	1756	26	37	250	1753	20	26	280	1700	
1852	18		230	1856	31	40	260	1853	18		250	1800	259
1952	20	24	230	1956	21	26	250	1953	20		260	1900	99
2052	17		240	2056	23	34	250	2053	17	25	260	2000	61
2152	11		220	2156	23		250	2153	17		260	2100	49
2252	8		210	2256	20	25	250	2253	15		260	2200	48
2352	0		0	2356	18		250	2353	11		260	2300	35

**Table ADD-4:** Wind speed, wind gust, and wind direction tables for Campo airport, El Centro NAF, and Imperial County Airport comparative to the concentration of the Niland FEM Monitor on April 26, 2014. Values indicated in red are wind speed values coincident with the Niland FEM Monitor measured PM<sub>10</sub> concentrations above 100 µg/m<sup>3</sup>